



## **Alternative: Bank Water**

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### **1. Summary of the Alternative**

Water banking generally refers to a means of reallocating or transferring the use of water through some kind of centralized management entity. Rather than trying to find buyers or lessees for a particular water right, water rights holders "deposit" their water right in a "bank," which then leases the water right to a third party. The water rights holder is protected from forfeiture of the water right and benefits from revenues obtained for use of the water by a third party.

For example, a farmer could deposit his or her water right in a local water bank (run by an irrigation or conservancy district or by the New Mexico Office of the State Engineer [OSE]). Simultaneously, water users in need of additional water rights could apply to the water bank to lease water for a specific period of time and use. Using databases and other management tools, the water bank would be able to match the amount and location of the farmer's deposits with appropriate users and then set up leases with those users to reallocate the farmer's water rights deposited with the bank. The farmer would then cease irrigating the land appurtenant to those water rights.

In the West, water banking is increasingly used for allocation of scarce water resources. Texas, Arizona, and Idaho, among others, all have state water banking statutes and operational water banks. Many times, water banking serves as a transfer mechanism from agricultural water use (where water is available) to urban water uses (where water is in demand). Alternatively, water banks are used as a management tool to address drought. For example, the state of California has set up the California Drought Water Bank.





New Mexico does not have a comprehensive water banking statute. Water banking legislation has been introduced in several legislative sessions but has yet to pass. Although there is varying opinion about current water mechanisms, irrigation and conservancy districts may have *de facto* water banks in that water can be shifted to various lands within the districts. However, the water use remains agricultural and therefore this mechanism cannot satisfy urban demand for agricultural water. The Middle Rio Grande Conservancy District has drafted water banking rules that would allow a transfer from agricultural to urban uses outside the district. However, these rules have not been endorsed by the OSE, and no water transfer from within the district to entities outside the district has occurred.

Water banking could serve as an efficient and timely mechanism to address short-term water management issues. In New Mexico, however, it is uncertain how quickly a water banking transaction could occur given the requirement that changes in points of diversion and purpose and place of use require OSE approval. These transactions require notice and provide water users the opportunity to protest, which can greatly delay the process. Nevertheless, the notice requirement and opportunity to protest afford scrutiny of the impact of the water transaction on other users in the region.

Water banking in the Jemez y Sangre region could address the need for short-term reallocation of water during water shortages. Areas hardest hit by drought could turn to subregions or neighboring regions for short-term water supplies. Longer-term issues such as population growth and the accompanying increase in demand may best be addressed through long-term water rights sales or leases. Therefore, this alternative is considered as a potential component of a drought management plan rather than a method to provide new supply to meet growing demand.

## **2. Technical Feasibility**

The primary issues determining the feasibility of water banking are the financial feasibility, legal feasibility, and socioeconomic impacts resulting from the transfer of water among users. Technical considerations associated with this alternative center around the ability to physically





transfer water from one or more points of diversion or places of use to other locations. Potential transfers of water are easier if the recipient has an operational diversion structure from the same hydrologic system as the original water use. Thus water banking within irrigation and conservancy districts, with their limited geographical extent and shared distribution system, will generally not encounter any significant technical issues.

When water is transferred over a greater distance, such as from an irrigation district or acequia to a more distant urban area, not only is there a potential problem with physically obtaining the water, but the issue of impairment arises as well. New Mexico water law requires that transfers of water do not impair existing users. When transfers of water are made, protestants and the OSE may conduct technical analyses, including modeling, to evaluate the impact on other water rights holders. Thus the primary technical issue with establishing a water bank that serves users across different hydrologic systems is the determination of how potential impairment will be evaluated and/or monitored and still allow the transfers to occur in a timely manner.

### **3. Financial Feasibility**

Establishing a water bank, either within the OSE or by creating an entity with the legal authority to manage the water bank, will require startup funding as well as funds for annual operational costs, including salaries and equipment. An administrative water bank would require few, if any, large infrastructure costs. Costs will increase significantly if additional diversion structures or storage facilities are needed.

Startup costs include public and stakeholder participation to define the bank's mandate and powers and to obtain technical expertise adequate to assess the effects of proposed transfers in the region in which the bank operates. For water purchases, informational costs often are borne by the buyer and/or seller. However, for temporary transactions, the net economic returns are not usually large enough to support sophisticated modeling and data gathering. Low costs and swift results are necessary to ensure success of a water bank. To this end, the bank will need to develop some mechanism (such as a state-of-the-art web site) that allows potential





transactors to obtain information, to offer and bid for water, and to have their questions answered.

Given the high price for water in the Jemez y Sangre area, it may be possible to generate sufficient revenues through fees and costs imposed on the water transactions managed by the water bank. Two types of fees could be structured: (1) annual membership fees to participate in the bank (membership would confer voting privileges regarding bank policies), and (2) specific fees levied when transactions occur. Should the region choose to pursue creation of a water bank within the OSE, a legislative initiative to increase the OSE budget may be one way to cover the cost of the program.

#### **4. Legal Feasibility**

Although New Mexico passed a water banking statute in 2002, that statute is limited to the reach of the Pecos River below Sumner Dam, and New Mexico still has no comprehensive water banking statute. However, several statutory provisions in New Mexico can currently be utilized to some extent to allow water storage without fear of forfeiture. While these statutes allow for water transfer and storage, they do not provide an efficient transfer mechanism as would a water bank.

A statutory provision which helps encourage but does not specifically provide for water banking is the statutory exemption that allows certain water rights to go unused without being subject to forfeiture. This statute (NMSA 1978, §72-5-28(G)) provides that periods of non-use when water rights are acquired and placed in an OSE-approved water conservation program—by an individual, acequia or community ditch association, conservancy district, irrigation district, soil and conservation district, or the Interstate Stream Commission—shall not be computed as part of the four-year statutory forfeiture period. This provision gives the stated entities the incentive to conserve by ensuring that any saved water will not be subject to forfeiture. Thus, this is the mechanism used by the Interstate Stream Commission to lease water rights in order to increase surface water flows on the Pecos River.





Conservancy districts are also protected from forfeiture of conserved or banked water through NMSA 1978, §73-14-47(F). This provision states that “[w]here the district acquires . . . water or water rights, or where it conserves, develops or reclaims water, it shall have the rights which go with the appropriation and beneficial use thereof . . . . Conservation or reclamation of water by the district is hereby declared to be an appropriation thereof by the district, and the disposition thereof under the terms of this act is hereby declared to be a beneficial use thereof by said districts and by the lands included therein.”

## **5. Effectiveness in Either Increasing the Available Supply or Reducing the Projected Demand**

Water banking would not change the overall amount of water available in the region (unless neighboring regions deposited water in the bank). However, it would address short-term allocation problems and streamline the water transfer process. A successful water bank would facilitate water management in the region.

## **6. Environmental Implications**

Water transfers from one location and use to another could have environmental and aesthetic impacts. For example, agricultural areas tend to attract wildlife and support surrounding vegetation and habitat as opposed to the urban environment. In addition, reduction in surface flows of water and in groundwater levels due to water withdrawals that without water banking would not have occurred can directly affect the health of riparian ecosystems.

## **7. Socioeconomic Impacts**

The water bank transactions discussed in this analysis are temporary transfers of water from irrigation use to municipal or industrial uses. Socioeconomic impacts of permanent transfers are examined under the *Purchase Surface Water Rights in the Marketplace* alternative (DBS&A, 2002).





The primary advantage a regional water bank can provide is to arrange water transfers with lower costs, better use of technical information, and fewer procedural and political obstacles than parties can accomplish in transferring water on their own. To accomplish this, a water bank requires political buy-in from local governments and water user organizations and needs to establish a reputation for effective water management and for fairness in dealing with diverse stakeholders.

The nature and magnitude of socioeconomic impacts depend on the size and duration of the change in water use. A short-term lease that involves a small proportion of the water typically used for irrigation in the subregion from which the water is being leased will have little negative impact of any type. Given that transactions are arranged through voluntary negotiations, the price paid to lease the water will necessarily exceed its economic and cultural value to the irrigator. However, there may be impacts on the viability of local agriculture and on local communities in the sub-basin from which the water is being transferred. If the amount of water leased represents a small portion of irrigation use in the area, those impacts will be negligible. For the recipient of the banked water, the economic benefits of short-term transfers can be substantial, especially if such transfers prevent significant economic dislocation due to lack of water during a drought or other crisis.

To reduce transaction costs and to manage conflicts that arise when water is proposed to be transferred, the bank will need clear guidelines (consistent with OSE) regarding the types of transfers it will facilitate and the circumstances under which third-party compensation will be warranted. To help reduce local government opposition to water transfers out of their jurisdiction, compensation mechanisms could be established for losses in local property tax or sales tax payments when the transactions causes a reduction in property value or in local economic output. The bank also could require compensation to cover transaction fees and any increased costs created by the transfer for acequias or community ditch associations.

Acequia interests have long been opposed to a statewide mechanism for water banking. Moving water rights, even temporarily, outside of their local watershed or area of origin would likely result in negative impacts to community ditch systems and important associated socioeconomic and cultural values. There is also a concern that statewide water banking would





open the door for more aggressive acquisition of community water rights on the open market. Acequias are vital both as a sustainable irrigation system for subsistence and market agriculture and also as part of the social glue that holds together rural communities. Planners should consider the fact that acequias and other local traditions are critical not only for the continuity of rural culture and communities, but also for the local tourism industry, which is built in large part upon the unique cultural and historical personality of the region.

Regional acequia associations have proposed smaller, localized water banking systems that would allow transfers of temporarily unused water rights only within a local watershed or area of origin. Local water banks, equitably controlled by local water right owners, would minimize potential socioeconomic and cultural impacts, as well as the environmental impacts outlined in Section 6. However, allowing only local transfers could limit the bank's ability to move water to high-demand uses, and in years when insufficient water is available to grow a crop, temporary leases of water rights for municipal uses can have significant financial benefits for acequias. Such leases would also allow municipalities to avoid severe drought restrictions and their economic consequences.

Acequia representatives have indicated that before they will support any further discussion of water banking, they would like the following protections to be in place:

- Area of origin protection against adverse effects on local communities
- Recognition of Acequia authority to veto a water transfer out of the Acequia
- Establishment of Acequia authority to create local water banks
- Development of a public welfare statement to address water transfers

## **8. Actions Needed to Implement/Ease of Implementation**

To initiate water banking-type transactions, the Jemez y Sangre Water Planning Council could pursue several actions:





- Investigate whether "functional" water banking in other areas of the state (Pecos Valley) would actually apply to the Jemez y Sangre area or whether those water banks are unique as a result of court-ordered adjudication or settlements.
- Identify whether existing entities in the region (acequias) could operate a water bank (whether they have legal authority). If they cannot, identify what type of entity should be created and how to proceed.
- Use the Ground Water Storage and Recovery Act (Section 4) to its maximum potential.
- Determine if water is available for storage pursuant to the Ground Water Storage and Recovery Act.
- Advocate the expansion of NMSA 1978, §72-5-28(G) to allow water planning regions to acquire and place water rights in an OSE-approved water conservation program, thus providing the regions with the incentive to conserve by ensuring that any saved water will not be subject to forfeiture.
- Determine whether a sound regional water plan would require a type of water banking not available or permitted through the existing statutory scheme.
- Study the implications of the passage of a comprehensive water banking bill for New Mexico, including whether the passage of such legislation could occur prior to the implementation of a regional water plan, and investigate other ways of assuring that "wet water," rather than waterless water rights, is the currency of exchange in the water bank.

## **9. Summary of Advantages and Disadvantages**

Advantages of water banking to the Jemez y Sangre region are:







- Regional water banks could provide much-needed flexibility for managing water use and allocation during drought.
- Water banking could facilitate water transfers to meet future demand, although if adequate protections are not in place, such facilitation could potentially have a negative impact on the areas that the water is transferred from.

Water banking could have negative socioeconomic impacts to certain areas of the region unless it is conducted with rigorous technical and administrative oversight and political support from all affected areas.

## References

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